

REMARKS

Claims 1-20 remain pending in this application. Reconsideration and review are respectfully requested.

Objections to the Drawings

With this Response, Applicants submit replacement drawing sheets, wherein the reference characters and figure legends have been made uniform and legible.

Claim Rejections – 35 U.S.C. §102

The Examiner rejects claims 1, 2, 5, 6, 9, 11, 18 and 19 under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 6,024,018 to Darel et al. Applicants respectfully disagree.

The Examiner states that Darel et al. discloses a camera assembly having an image sensor, a light source, an optics assembly, a microprocessor and image processing hardware, all positioned within a housing. The Examiner points to Figs. 1, 2, and 3 and columns 5 and 6 through column 7, line 23, and col. 14, line 41 through column 15, line 16 for support.

With reference to Figs. 1-3 of Darel et al. and the accompanying description, Darel et al. does not teach or suggest a camera assembly having image processing hardware positioned within the same housing as the image sensor, light source, and optics assembly, as required by Applicants' claim 1. Fig. 1 of Darel et al. is described in the "Brief Description of the Drawings" and the specification at column 5, line 19 as a high level block diagram of a color control system 10. Similarly, Fig. 2 is described as being a high level block diagram of the color control system 10 integrated into a printing press 22. As such, the single hatched rectangle in Fig. 1 merely groups together the components of the color control system 10. This grouping of components does not mean that the image processing hardware is positioned within the same housing as the image sensor, light source, and optics assembly. This interpretation is supported by reference to Fig. 3, which shows the image acquisition unit 12, including image sensors 42, 44, 46, light sources 66, 68, and optics assembly within structural frame 30. In Fig. 3, the image processing hardware, i.e., image processing unit 14, is not illustrated as being within the same structural frame 30. Presumably, image processing unit 14 is located elsewhere. Therefore, Applicants respectfully submit that claim 1 is allowable over the Darel et al. reference.

Claims 2-9 depend from independent claim 1 and are allowable for the reasons discussed above with respect to claim 1, as well as for other reasons not discussed herein.

With respect to Applicants' claim 11, as discussed above with respect to claim 1, Darel et al. does not teach or suggest image processing hardware together with a camera and a light source positioned within the same housing, as required by claim 11. Similarly, Darel et al. does not teach or suggest image processing hardware together with a camera, a light source and an optics assembly positioned within the same housing, as required by claim 18. Applicants respectfully submit that claims 11 and 18 are also allowable over the Darel et al. reference.

Claim 19 depends from independent claim 18 and is allowable for the reasons discussed above with respect to claim 18, as well as for other reasons not discussed herein.

Claim Rejections – 35 U.S.C. §103

The Examiner rejects claims 3, 7, 8, 10, 12, 13, 15 and 20 under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,024,018 to Darel et al. Further, the Examiner rejects claims 4, 14, 16, and 17 as being unpatentable over Darel et al. and further in view of U.S. Pat. No. 5,018,213 to Sikes et al. Reconsideration is respectfully requested.

As discussed above, claims 3, 4, 7 and 8 are dependent on claim 1 and are allowable for at least the same reasons as those advanced with respect to claim 1.

With respect to Applicants' claim 10, Darel et al. does not teach or suggest image processing hardware together with a camera and a light source positioned within the same housing, as required by claim 10. Sikes et al. does not cure the deficiencies of Darel et al. in this regard. As stated at col. 4, lines 29-33 of the Sikes specification, the "image data generated by the camera in acquiring the image is coupled to the control circuitry within the enclosure 64 which analyzes the image data to extract registration information." As illustrated in Fig. 1, the video camera 116 of Sikes that acquires the image of the printed web is spaced from the enclosure 64 and is not contained within the same housing. Thus, Sikes does not teach or suggest a camera assembly having a housing that contains the camera, the light source, and the image processing hardware, as recited in claim 10.

With respect to Applicants' claim 12, Darel et al. does not teach or suggest image processing hardware together with a digital communication interface, a scanner, and a light source positioned within the same housing, as required by claim 12. Darel et al. does teach the

use of a local area network at column 5, lines 24-27 for the components to communicate, but the specified components are not all within the same housing.

With respect to Applicants' claim 13, Darel et al. does not teach or suggest image processing hardware together with a CCD area scanner and a strobe light source positioned with the same housing, as required by claim 13.

With respect to Applicants' claim 14, Darel et al. does not teach or suggest image processing hardware together with a camera, a light source, and an optics assembly positioned with the same housing, as required by claim 14. Sikes et al. does not cure the deficiencies of Darel et al.

With respect to Applicants' claim 15, Darel et al. does not teach or suggest image processing components including a microprocessor and an FPGA positioned within the same housing as a scanner, as required by claim 15.

With respect to Applicants' claim 16, Darel et al. does not teach or suggest a method including the step of providing a camera enclosure having mounted therein a scanner and image processing hardware, as required by claim 16. Again, Sikes et al. does not cure the deficiencies of Darel et al.

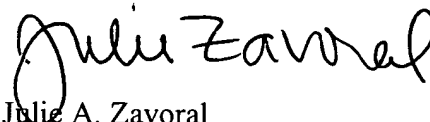
With respect to Applicants' claim 17, Darel et al. does not teach or suggest a method including the step of scanning a paper substrate with a camera assembly having mounted, within a housing, a scanner and image processing hardware, as required by claim 17.

Therefore, claims 10, 12, 13-17 are allowable over the cited references.

With respect to Applicants' claim 20, claim 20 is dependent on independent claim 18, and is allowable for the same reasons claim 18 is allowable, as discussed above.

In view of the foregoing, entry of the above amendments and allowance of claims 1-20 are respectfully requested. The undersigned is available for telephone consultation at any time.

Respectfully submitted,



Julie A. Zavoral
Reg. No. 43,304